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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,035	03/26/2004	Albert S. Weiner	ATM-291	8458
3897	7590	08/23/2005	EXAMINER	
SCHNECK & SCHNECK P.O. BOX 2-E SAN JOSE, CA 95109-0005			NGUYEN, THINH T	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,035

Applicant(s)

WEINER, ALBERT S.

Examiner

Thinh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED OFFICE ACTION

1. Applicant's election of claim 1-10 for prosecution without traverse in the communication with the Office on 8/4/2005 is acknowledged.

Specification

2. The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant cooperation is requested in correcting any errors of which the applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b/e) that form the basis for the rejections under this section made in this office action.

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1,6, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Campardo et al. (U.S. Patent 5,535,157).

REGARDING CLAIM 1

Campardo discloses (in the abstract, in fig 1) a transistor memory array comprising: a first plurality of non-volatile memory transistors (group S in fig 1) and a second plurality of read-only memory Transistors (group M in fig 1) , the non-volatile memory transistors having the same footprint as the read-only memory transistors within a single memory array.

Noted that even though Campardo does not mention about footprint, in his disclosure, all the transistor cells inherently have the same footprint since the structure and the size of the ROM cell group (Campardo called them the OTP cells or one time programmable) is exactly the same as the EEPROM cell Group.

REGARDING CLAIM 6

Campardo discloses (in the abstract, in fig 1) a transistor memory array wherein the second plurality of read only transistors (the OTP group) is grouped into rows.

REGARDING CLAIM 10

Campardo discloses (in the abstract, in fig 1) discloses a transistor array wherein the non volatile transistors are EEPROM transistors.

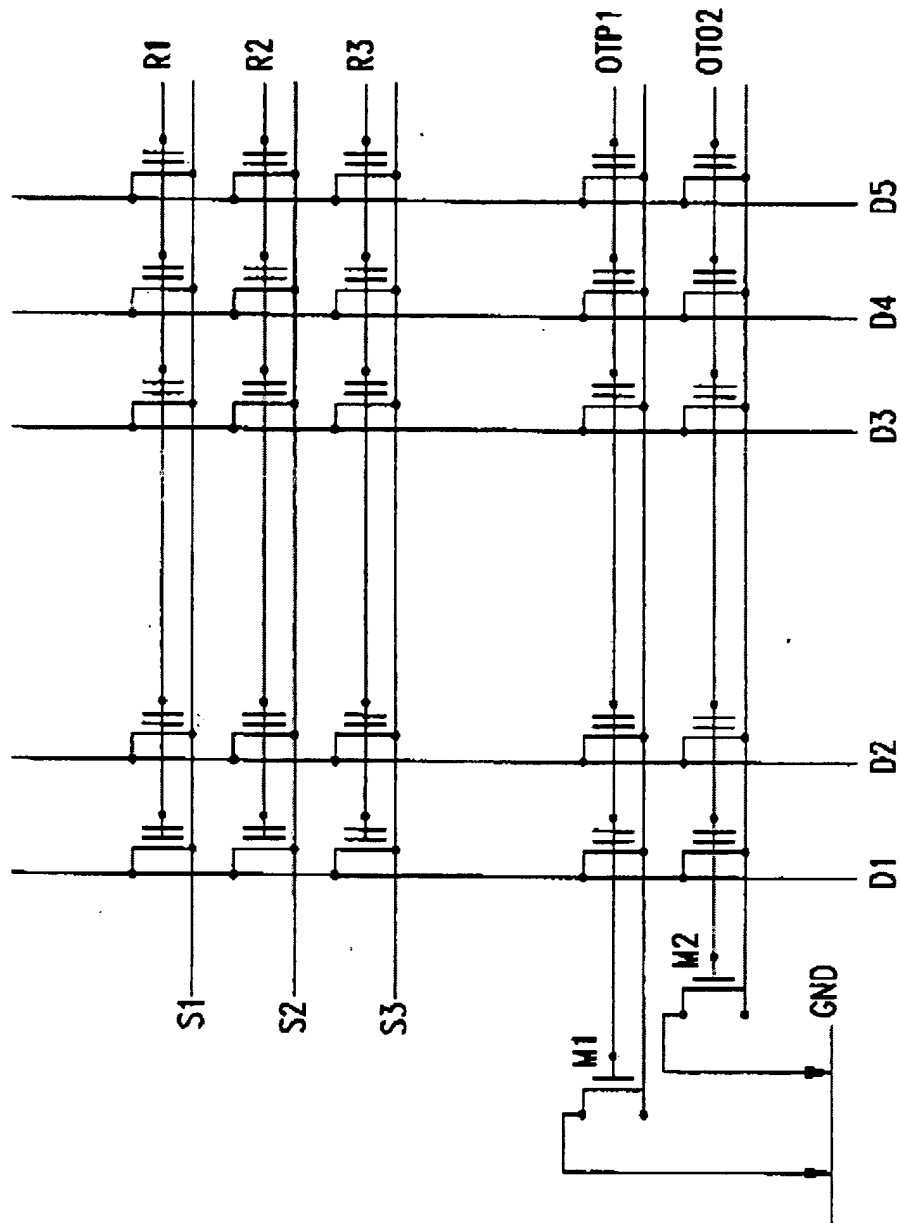


Fig. 1

Claim Rejections - 35 USC § 103

6. The following is a quotation of U.S.C. 103(a) which form the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2,3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashikoshi et al. (U.S. patent 5,132,928) in view of Campardo et al. (U.S. patent 5,535,157)

REGARDING CLAIM 2

Hayashikoshi (the abstract, fig 5) discloses all the invention including an EEPROM array that has the memory cell with EEPROM transistor and select transistor (Q1 to Q9) with the same footprint. Missing in the disclosure by Hayashikoshi is the array of EEPROM of claim 2 also includes an array of ROM. Campardo, however, (in fig 1 and the abstract) discloses an array of EEPROM that included an extra ROM array access only by the manufacturer (column 1 lines 14-16)

It would have been obvious to one of ordinary skill in the art the time the invention was made to combine the teachings by Hayashikoshi and Campardo and come up with claim 2 . The rationale is as the following:

A person skilled in the art would have been motivated to get more profit by providing the flexibility required by the manufacturer to keep track of the quality of their product for the Hayashikoshi device as taught in column 1 lines 20-23 of the Campardo reference.

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REGARDING CLAIM 3

Hayashikoshi (the abstract, fig 5,in fig 3) that the select transistor and memory transistor have a common electrode (electrode 202 in fig 3). The rationale as why to combines the Hayashikoshi and Campardo references has been discussed in the rejection of claim 2.

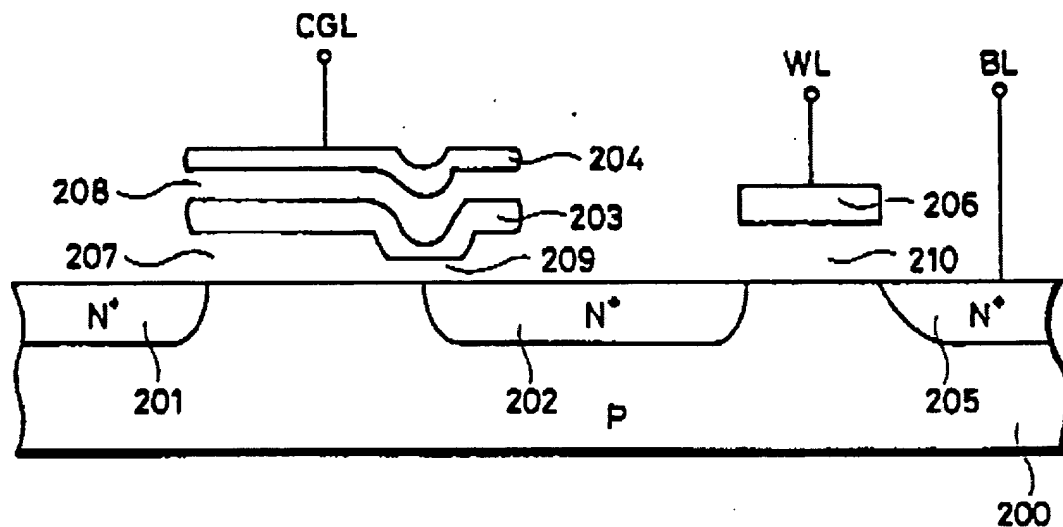
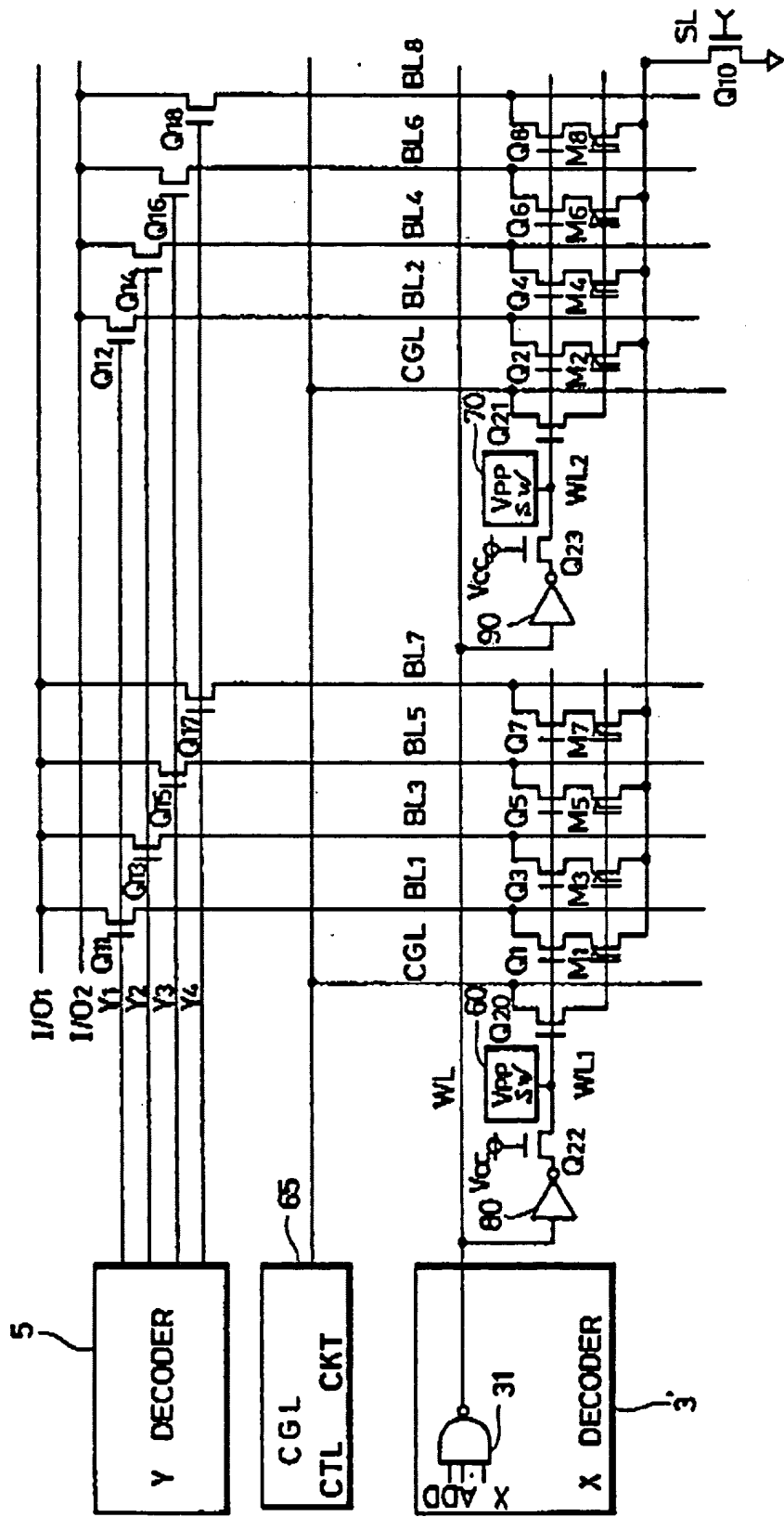
FIG.3 PRIOR ART

FIG. 5



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8. Claims 4,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashikoshi et al. (U.S. patent 5,132,928) in view of Campardo et al. (US patent 5,535,157) and in further view of Ho et al. (US patent 6,355,530).

REGARDING CLAIM 4

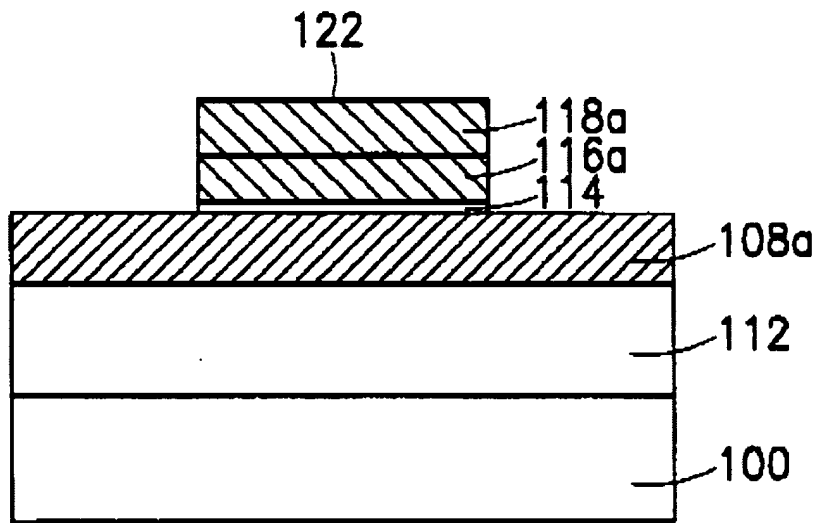
As discussed in the rejection of claim 2, the combined teachings by Campardo and Hayashikoshi disclose all the invention of claim except for the limitation of a ROM array that comprises a single transistor with open or closed channel. Ho et al (in column 1 lines 25-35 column 1 lines 44-50), however, discloses ROM cells with open or closed channel.

It would have been obvious to one of ordinary skill in the art the time the invention was made to combine the teachings by Hayashikoshi, Campardo et al. and Ho et al. and come up with the invention of claim 4 since a person skilled in the art would have been motivated to improve the device invented by the combined teachings of Hayashikoshi and Campardo and come up with a device that are simpler to make and has less leakage as taught by Ho (column 3 lines 11-16).

REGARDING CLAIM 5

Campardo discloses (the abstract, fig 1) a non-volatile transistor with two poly layer while the ROM cell invented by Ho (fig 1E,column 4 line 17 layer 116a) has only one poly layer.

The rationale as why claim 5 is obvious over Campardo and Ho has been discussed in the rejection of claim 4.



9. Claims 7,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campardo et al. (US patent 5,535,157) in view of further remark.

REGARDING CLAIM 7,8

Campardo (the abstract, fig 1) discloses all the invention except for the condition of programming wherein the group of ROM cells has a first subgroup of transistors at least one row in first logic state and a second subgroup of transistors in at least one row second logic state. These feature, however, are considered obvious since the manufacturer are required to set up their devices as dictate by the demand of their need (see the Campardo reference column 1 lines 14-23) . A person skilled in the art at the time the invention was made would have been capable of using the teaching by Campardo and his own ordinary design skill and come up with the invention of claim 7,8 without any special teachings for the purpose already explained beforehand.

ALLOWABLE SUBJECT MATTER

10. Claims 9 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

Claim 9 is considered allowable since the prior fails to teach a transistor memory array that has all the additional technical features as recited in claim 9.

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and the page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

12. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to be abandoned (see M.P.E.P. 710.02(b)).

CONCLUSION

13. The prior arts made of record and not relied upon are considered pertinent to applicant disclosure: McElheny et al (US patent 6,187,634) disclose a process for making an EEPROM active area casting.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh T Nguyen whose telephone number is 571-272-1790.

The examiner can normally be reached on Monday-Friday 9:00am-6:00pm.

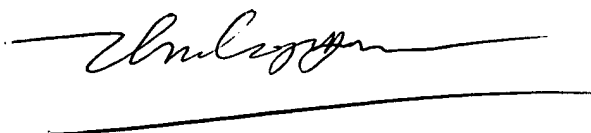
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached at 571-272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval [PAIR] system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thinh T. Nguyen

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A handwritten signature in black ink, appearing to read 'Thinh T. Nguyen', is written over a horizontal line.